ABSTRACT

A control for defining data for setting the times for controlled events in a
glass forming machine which is controlled by a programmable sequencer which

5   defines the time of a machine cycle. A computerized model of a mathematical
representation of a network constraint diagram of the unwrapped bottle forming
process is provided with computer analysis for analyzing the computerized model
as a constrained optimization problem for determining, with inputs including the
following:

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        1. the motion durations of each of the mechanisms from the
retracted position to the advanced position and from the advanced position to the
retracted position,

        2. the submotion durations,

15   3. the machine cycle time, and

        4. the time in an unwrapped bottle forming process for each
displacement to begin and for each valve to be turned "on" and "off", and

        5. the target time for an optimized machine cycle,

20   the machine cycle time and the event times for an optimized process.